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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/688,879	10/21/2003	Tsuyoshi Kindo	2003_1497A	2775

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EXAMINER	
AMRANY, ADI	
ART UNIT	**PAPER NUMBER**
2836	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	04/17/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	10/688,879	KINDO ET AL.	
	Examiner	Art Unit	
	Adi Amrany	2836	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *07 March 2007*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *13-17* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *13-17* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Objections

1. Claim 17 is objected to because there is insufficient distinction between the standby and hibernate states. Neither state is defined, yet both result in the same end result. Appropriate correction is required.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 13 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kirkhart (US 6,055,479) in view of Levine (US 2003/0135327).

With respect to claim 13, Kirkhart discloses a vehicle-installed apparatus (figure 1, item 20; column 2, lines 59-62) to be installed in a vehicle having a main power source (item 48; column 3, lines 14-17), said apparatus comprising:

an unlocking/locking detection section (column 4, lines 4-9; column 5, lines 26-30);

an ignition key detecting section (column 3, lines 49-66);

a state determining section (figure 4, "standby" and "powerup") for determining a state of an operating system of said apparatus;

a battery control section for, if said unlocking/locking detection section is detecting that the vehicle door is unlocked, booting up said apparatus by starting a power supply from said battery (column 4, lines 31-38; column 5, lines 26-32);

a power source switching section (column 1, lines 60-63) for, when said ignition key detecting section has detected that the ignition key is switched from OFF to ON if power is being supplied in low power mode, stopping the power from the low power mode and starting a power supply in high power mode.

Kirkhart does not expressly disclose a dedicated secondary battery. Levine discloses a vehicle-installed apparatus (figure 1; paragraph 97) comprising a dedicated secondary battery (column 112, namely lines 16-23; claim 6). Kirkhart and Levine are analogous because they are from the same field of endeavor, namely vehicle-installed navigation systems. At the time of the invention by applicants, it would have been obvious to replace the dual-power mode battery in Kirkhart with the back-up dedicated battery disclosed in Levine in order to supply power the navigation system while the vehicle is off.

With respect to claim 17, Kirkhart discloses the state determining section (figure 4) is operable to determine the apparatus is in one of:

an end state wherein said apparatus is not booted up unless an initial boot-up is performed by using said secondary battery (transition from 90 to 94);

a standby state wherein said apparatus is booted up with an initial boot-up by using the main power source (transition from 92 to 96);

a hibernate state wherein said apparatus is booted up with an initial boot-up by using the main power source (transition from 92 to 96).

The language of claim 17 does not require that the state determining section be able to "distinguish" between the three states, nor are the actual states claimed as a limitation of a state determining section. The claim only requires that the state determining section be able to identify at least one of the listed states.

4. Claims 13-14 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kirkhart in view of Amano (US 6,806,588).

With respect to claim 13, Kirkhart discloses the recited limitations, but does not expressly disclose a dedicated secondary battery, as discussed above. Amano discloses a vehicle-installed apparatus (figure 1, item 54; column 3, lines 34-45) comprising a main power source (item 1; column 3, lines 23-29) for high power loads, a secondary battery (item 2) for low power loads, and a power source switching section (column 3, lines 47-58). Amano discloses controlling the power from the batteries in order to power specific loads when the ignition is off, in order to conserve power and maintain the main battery above a threshold voltage (column 6, lines 40-64). At the time of the invention by applicants, it would have been obvious to one of ordinary skill in the art to duplicate the Amano secondary battery for each of the low power loads, since it has been held that mere duplication of the essential working parts of a device involves only routine skill in the art. *St. Regis Paper Co. v. Bemis Co.,* 193 USPQ 8 (CCPA 1977).

Kirkhart and Amano are analogous because they are from the same field of endeavor, namely power control units for vehicle power supplies. At the time of the invention by applicants, it would have been obvious to a person of ordinary skill in the art to replace the high-power and low-power battery modes disclosed in Kirkhart, with the two battery system and auxiliary battery control section disclosed in Amano, in order to supply power from the auxiliary battery while the vehicle is off in order to maintain the main battery at a sufficient level to start the engine.

With respect to claim 14, Amano further discloses the secondary battery control section is operable to monitor an amount of power remaining in said second battery (figure 1, item 23, column 3, lines 48-49), and to boot up said apparatus by starting a power supply from said secondary battery to said apparatus when the amount of power remaining in said secondary battery is equal to or greater than a predetermined value (figure 2, steps 170, 180 and 190; column 5, lines 41-67; column 6, lines 40-64).

Amano discloses a power control unit that detects the power remaining in the main and auxiliary batteries while the engine is off. Amano recites that loads may be shut off in order of priority as the batter power level decreases (column 6, lines 55-64). This is analogous to not turning on a load if there is insufficient power in the battery to activate the load.

With respect to claim 17, Kirkhart discloses the recited limitations, as discussed above.

5. Claims 15-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kirkhart in view of Amano and Kim (US 5,621,250).

With respect to claims 15-16, Kirkhart discloses a time measuring section (column 5, lines 52-57). Kirkhart detects the presence of the driver by sensing the unlocking of the doors (column 4, lines 4-14). If the ignition is not turned on within a predetermined time, the apparatus stops booting up and reenters low-power mode. Kirkhart and Amano do not expressly disclose wherein the battery control is operable to boot up said apparatus by starting a power supply from the battery to said apparatus only when said unlocking/locking detection section is not detecting that the door is locked and said time measuring section has measured a predetermined amount of time.

Kim discloses a vehicle-installed apparatus (figure 1; column 2, lines 48-67), including an unlocking/locking detecting section (column 3, lines 25-58) and a time measuring section (column 8, line 48 to column 9, line 45), wherein the battery control is operable to boot up said apparatus by starting a power supply from the battery to said apparatus only when said unlocking/locking detection section is not detecting that the door is locked and said time measuring section has measured a predetermined amount of time (column 9, lines 24-45).

Kirkhart, Amano and Kim are analogous because they are from the same field of endeavor, namely vehicle power control units. At the time of the invention by applicants, it would have been obvious to combine the apparatus disclosed in Kirkhart and Amano with the boot up delay disclosed in Kim, in order to prevent the computer from booting up every time the vehicle door is unlocked (Kim, column 8, lines 51-58).

6. Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kirkhart in view of Levine and Amano.

Amano discloses the limitations of claim 14, as discussed above. Kirkhart, Levine and Amano are analogous because they are from the same field of endeavor, namely power control units for vehicle power supplies. At the time of the invention by applicants, it would have been obvious to a person of ordinary skill in the art to combine the apparatus disclosed in Kirkhart and Levine with the battery monitor disclosed in Amano in order to prevent the battery from depleting beyond a threshold (Amano, abstract).

7. Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kirkhart in view of Levine, Amano and Kim.

Kim disclosed the limitations of claim 15, as discussed above. Kirkhart, Levine, Amano and Kim are analogous because they are from the same field of endeavor, namely power control units for vehicle power supplies. At the time of the invention by applicants, it would have been obvious to a person of ordinary skill in the art to combine the apparatus disclosed by Kirkhart, Levine and Amano with the boot up delay disclosed in Kim, in order to prevent the computer from booting up every time the vehicle door is unlocked (Kim, column 8, lines 51-58).

8. Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kirkhart in view of Levine and Kim.

Kim discloses the limitations of claim 16, and Kirkhart, Levine and Kim are analogous, as discussed above.

Conclusion

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Adi Amrany whose telephone number is (571) 272-0415. The examiner can normally be reached on weekdays, from 9am-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brian Sircus can be reached on (571) 272-2800 x36. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

AA

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